

ERIC NJUGUNA

Software & Data Architect | AI-Integrated Systems | Backend & Cloud | Reliable Enterprise Platforms

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PROFESSIONAL SUMMARY

Software and Data Architect with over seven years of experience designing reliable backend, data, cloud, and AI-integrated systems for high-pressure business environments. Experienced across energy, insurance, SaaS, education technology, and enterprise platforms, with a strong focus on system reliability, observability, database architecture, API integrations, and scalable delivery. I help teams transform fragile workflows into measurable, maintainable systems built for real business operations.

CORE SKILLS

- **Architecture:** Software Architecture, Data Architecture, System Architecture, Solution Architecture, Non-Functional Requirements
- **Backend & APIs:** Python, Go, Node.js, FastAPI, NestJS, Express.js, API Integration, Backend Development
- **Data & Databases:** PostgreSQL, SQL Server, InfluxDB, Database Design, Database Administration, Replication, High Availability
- **Cloud & DevOps:** Azure, AWS, Google Cloud, Docker, Git, Azure DevOps, Cloud Infrastructure
- **Observability & AI:** Grafana, Spotfire, WITSML, Real-Time Data Systems, AI Integration, Model Context Protocol, Generative AI
- **Frontend & Mobile:** React, Vue.js, React Native

PROFESSIONAL EXPERIENCE

Senior Data Architect | Venture Gulf Oil and Gas Services WII

Remote / United Kingdom | Oct 2025 - Present

- Lead data architecture, IT infrastructure, and system reliability for critical energy operations, reporting directly to the CTO.
- Design and maintain real-time Grafana observability dashboards for drilling metrics, uptime visibility, and operational decision making.
- Manage WITSML data streams to ensure accurate, reliable, and consistent drilling statistics across operational systems.
- Engineer high-availability database architectures, replication workflows, and administration processes to improve resilience and data integrity.
- Build AI-integrated workflows and models to identify, classify, and analyze specific drilling operations while improving production reliability.

Software Architect | FutureTech Consultants, LLC

Nairobi County, Kenya | Nov 2022 - Sep 2025

- Led architecture and delivery for enterprise insurance platforms across claims processing, underwriting workflows, policy systems, integrations, and reliability.
- Integrated claims processing tools and underwriting APIs into core insurance systems, reducing average policy approval time from 6 hours to 4.6 hours.
- Conducted infrastructure and system audits for insurance clients, identifying redundant data pipelines, server bottlenecks, and reliability improvements.
- Managed end-to-end delivery of enterprise policy management systems from planning and architecture through deployment, training, and handover.
- Worked across backend, database, cloud, and integration layers to improve stability, operational efficiency, and client onboarding experience.

Full Stack Developer | Kamsware Ltd

Nairobi County, Kenya | Sep 2021 - Nov 2022

- Built and delivered full-stack web and mobile applications for technically demanding client projects, focusing on reliability, usability, and clean implementation.
- Led architecture and development of custom web platforms using PHP, WordPress, CodeIgniter, JavaScript, and modern frontend practices.
- Developed tailored client applications that met strict requirements and achieved strong QA acceptance on first review.
- Built and supported a rapid-response mobile application using C# backend services and React Native for secure coordination in high risk environments.

Junior Software Developer | Muddy Boots by TELUS Agriculture & Consumer Goods

Nairobi County, Kenya | Jul 2019 - Dec 2019

- Developed and maintained operational software features across backend fixes, reporting, database performance, and deployment support.

- Resolved recurring bugs, backend issues, and user-reported defects to improve platform stability and day-to-day user experience.
- Designed operational reports using SQL Server Reporting Services and contributed maintainable CodeIgniter-based PHP improvements.
- Tested, debugged, and supported deployments to improve release reliability and reduce recurring production issues.

Earlier experience includes IT support, internal application development, and 3CX VoIP support across Kenya Power and Insyque Solutions.

PROJECTS

Mfadhili.com - Bursary Management SaaS Platform | Feb 2026 - Present

Building a SaaS platform that helps institutions in Kenya manage, publish, receive, review, and process bursary applications from one centralized system, reducing manual workflows and improving applicant access.

MyDarasa.com - Digital Learning Platform | Feb 2025 - Present

Building an education-focused platform that supports learning, content access, and academic engagement through a centralized online experience, with emphasis on usability, backend reliability, and scalability.

Insurance Retail Product Rollout | Jun 2023 - Aug 2023

Supervised rollout of an insurance retail product covering planning, gap analysis, deployment, staff training, Level 1 support, post-launch stabilization, documentation, and client handover.

Human Rights Defenders Secure Communication Platform | May 2021

Built a secure mobile application for high risk users, including secure communication, real-time location sharing, and SOS alert functionality for rapid-response coordination.

EDUCATION

Bachelor's Degree, Computer Science | Africa Nazarene University | 2017 - 2021

Focus: software engineering, database systems, web and mobile application development, data structures, and system design.

CERTIFICATIONS

- Model Context Protocol: Advanced Topics - Anthropic
- Introduction to Model Context Protocol - Anthropic
- AI Fluency: Framework & Foundations - Anthropic
- AI Fluency for Educators - Anthropic
- CIPIT Data Protection - Strathmore University
- Jira Fundamentals Badge - Atlassian
- Confluence Fundamentals Badge - Atlassian
- 3CX Intermediate Certified Engineer v16 - 3CX
- Project Management Principles and Practices Specialization - UC Irvine